AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for producing ~~fertile~~ transgenic plants, ~~wherein cytokinin content, in developing seeds and/or related maternal tissue, is increased relative to nontransgenic siblings,~~ comprising:
transforming plant host cells with a genetic construct, said construct comprising a tissue-preferred, tissue-specific, or temporally-regulated promoter driving expression in developing seeds or related maternal tissue, wherein said promoter is operably linked to an isolated polynucleotide encoding ~~a bacterial~~ an isopentenyl transferase, wherein the isolated polynucleotide is expressed in the transformed plant cell; and
regenerating and recovering said ~~fertile~~ transgenic plants, wherein said plants exhibit one or more traits selected from the group consisting of improved seed size, decreased seed abortion and increased seed set during unfavorable environmental conditions, relative to a control plant.
2. (Previously presented) The method according to Claim 1 wherein the transformation is carried out by a process selected from the group consisting of electroporation, PEG poration, particle bombardment, silicon fiber delivery, microinjection, and Agrobacterium-mediated transformation.
3. (Previously presented) The method according to Claim 2 wherein said process is particle bombardment.
4. (Previously presented) The method according to Claim 2 wherein said process is Agrobacterium-mediated transformation.
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Previously presented) The method according to Claim 1 wherein said promoter directs embryo-preferred expression.
9. (Withdrawn) The method according to Claim 8 wherein said promoter is globulin-1.
10. (Canceled)

11. (Withdrawn) The method according to Claim 10 wherein said promoter is 27KD gamma zein.

12– 16. (Canceled)

17. (Currently amended) A ~~fertile~~ transgenic plant comprising a genetic construct stably integrated into the genome thereof, said construct comprising a tissue-preferred, tissue-specific, or temporally-regulated promoter driving expression in developing seeds and/or related maternal tissue, wherein said promoter is operably linked to an isolated polynucleotide encoding ~~a bacterial~~ an isopentenyl transferase, and wherein said ~~plants exhibit~~ plant exhibits one or more traits selected from the group consisting of improved seed size, decreased seed abortion, and increased seed set during unfavorable environmental conditions, relative to ~~nontransgenic siblings~~ a control plant.

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Previously presented) The plant according to Claim 17 wherein said promoter directs embryo-preferred expression.

22. (Withdrawn) The plant according to Claim 21 wherein said promoter is globulin-1.

23. (Canceled)

24. (Withdrawn) The plant according to Claim 23 wherein said promoter is 27KD gamma zein.

25– 29. (Canceled)

30. (Currently amended) An isolated recombinant DNA molecule comprising a promoter directing temporal and/or spatial gene expression in plant seeds and/or related maternal tissue, wherein said promoter is operably linked to an isolated polynucleotide encoding ~~a bacterial~~ an isopentenyl transferase.

31. (Canceled)

32. (Canceled)

33. (Previously presented) The DNA molecule according to Claim 30 wherein said promoter directs embryo-preferred expression.

34. (Withdrawn) The DNA according to Claim 33 wherein said promoter is globulin-1.

35. (Canceled)

36. (Withdrawn) The DNA according to Claim 35 wherein said promoter is 27KD gamma zein.

37– 41 (Canceled)

42. (Previously presented) Host plant cells comprising the DNA molecule of Claim 30.

43. (Currently amended) A method for improving stress tolerance and yield stability in plants comprising stably transforming plant host cells with a genetic construct, said construct comprising a tissue-preferred, tissue-specific, or temporally-regulated promoter driving expression in developing seeds and/or related maternal tissue, ~~during the lag phase of plant seed development~~, wherein said promoter is operably linked to an isolated polynucleotide encoding ~~a bacterial~~ an isopentenyl transferase, and regenerating and recovering plants from said cells, wherein the introduced DNA is expressed in the transformed plants and said regenerated plants exhibit improved stress tolerance or yield stability.

44. (Currently amended) The method according to Claim 43 wherein said preferential expression ~~occurs~~ is initiated within the range of from about 14 days prior to pollination to about 25 days after pollination.

45. (Currently amended) The method according to Claim 43 wherein said preferential expression ~~occurs~~ is initiated within the range of ~~from about 4 to about~~ from about 14 days prior to about 21 days after pollination.

46. (Currently amended) The method according to Claim 43 wherein said preferential expression ~~occurs~~ is initiated within the range of ~~from about~~ 4 ~~to about~~ from about 14 days prior to about 12 days after pollination.

47. (Currently amended) The method according to Claim 43 wherein said preferential expression ~~occurs~~ is initiated within the range of from about ~~8 to about 12~~ 14 days prior to pollination to zero days after pollination.

48. (Withdrawn) The method according to Claim 5 wherein said seed is from a dicotyledonous plant and said promoter is selected from the group

consisting of bean β-phaseolin, napin, β-conglycinin and soybean lectin promoter.

49. (Canceled)

50. (Withdrawn) The method according to Claim 49 wherein said modulating gene encodes a cytokinin catabolic enzyme.

51. (Withdrawn) The method according to Claim 50 wherein said modulating gene encodes cytokinin oxidase.

52. (Withdrawn) The plant according to Claim 18 wherein said seed is from a dicotyledonous plant and said promoter is selected from the group consisting of bean β-phaseolin, napin, β-conglycinin and soybean lectin promoter.

53. (Canceled)

54. (Withdrawn) The plant according to Claim 53 wherein said modulating gene encodes a cytokinin catabolic enzyme.

55. (Withdrawn) The plant according to Claim 54 wherein said modulating gene encodes cytokinin oxidase.

56. (Withdrawn) The DNA according to Claim 30 wherein said seed is from a dicotyledonous plant and said promoter is selected from the group consisting of bean β-phaseolin, napin, β-conglycinin and soybean lectin promoter.

57. (Canceled)

58. (Withdrawn) The DNA according to Claim 57 wherein said modulating gene encodes a cytokinin catabolic enzyme.

59. (Withdrawn) The DNA according to Claim 58 wherein said modulating gene encodes cytokinin oxidase.

60-63. (Canceled)

64. (Currently amended) A method for producing transgenic plants wherein cytokinin content, in developing seeds and/or related maternal tissue, is increased relative to ~~nontransgenic siblings~~ a control plant, comprising:
transforming plant host cells with a genetic construct, said construct comprising a tissue-preferred, tissue-specific, or temporally-regulated promoter driving expression in developing seeds or related maternal tissue, wherein said promoter is operably linked to an isolated polynucleotide encoding ~~a bacterial~~ an isopentenyl transferase, and wherein the isolated polynucleotide is expressed in the transformed plant cells;
regenerating plants from said transformed cells; and
recovering said plants with increased cytokinin content by selecting viviparous seed on regenerated plants.

65. (Currently amended) A method for producing transgenic plants wherein cytokinin content, in developing seeds and/or related maternal tissue, is increased relative to ~~nontransgenic siblings~~ a control plant, comprising:
transforming plant host cells with a genetic construct, said construct comprising a tissue-preferred, tissue-specific, or temporally-regulated promoter driving expression in developing seeds or related maternal tissue, operably linked to an isolated polynucleotide encoding ~~a bacterial~~ an isopentenyl transferase, wherein said construct further comprises an isolated polynucleotide encoding a selectable marker, and wherein the isolated polynucleotides are expressed in the transformed plant cells;
regenerating plants from said transformed cells; and
recovering said plants with increased cytokinin content by screening for presence of the selectable marker.